

CLAIMS

1. A wireless communication apparatus comprising:
measuring means for measuring reliability of a hard
decision data resulting from performing a hard decision
5 on a received signal, using a pre-hard decision data which
is taken before performing the hard decision on the
received signal;

weight control means for controlling a weight
corresponding to the reliability measured in said
10 measuring means; and

transmission/reception means for performing
directional transmission and reception using the weight
controlled in said weight control means.

2. The wireless communication apparatus according to
15 claim 1, wherein said weight control means switches
whether or not to update the weight, corresponding to
the reliability of the hard decision data of the received
signal.

3. The wireless communication apparatus according to
20 claim 1, wherein said weight control means performs
weighting on an error signal obtained from the received
signal and the hard decision data of the received signal,
corresponding to the reliability of the hard decision
data of the received signal.

25 4. The wireless communication apparatus according to
claim 1, wherein said measuring means obtains likelihood
from the pre-hard decision data of the received signal

and the hard decision data.

5. The wireless communication apparatus according to claim 1, wherein said measuring means calculates a power of the pre-hard decision data of the received signal.

5 6. A radio base station apparatus provided with a wireless communication apparatus, said wireless communication apparatus comprising:

measuring means for measuring reliability of hard decision data resulting from performing a hard decision
10 on a received signal using a pre-hard decision data which is taken before performing the hard decision on the received signal;

weight control means for controlling a weight corresponding to the reliability measured in said
15 measuring means; and

transmission/reception means for performing directional transmission and reception using the weight controlled in said weight control means.

7. A radio mobile station apparatus provided with a
20 wireless communication apparatus, said wireless communication apparatus comprising:

measuring means for measuring reliability of hard decision data resulting from performing a hard decision on a received signal, using a pre-hard decision data which
25 is taken before performing the hard decision on the received signal;

weight control means for controlling a weight

corresponding to the reliability measured in said measuring means; and

transmission/reception means for performing directional transmission and reception using the weight
5 controlled in said weight control means.

8. A wireless communication method, comprising;

measuring reliability of hard decision data of a received signal, using pre-hard decision data of the received signal;

10 controlling a weight corresponding to the measured reliability;

multiplying the received signal by the controlled weight; and

performing directional transmission and reception.

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